CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 85-27

NPDES NO. CA 0005061

WASTE DISCHARGE REQUIREMENTS FOR:

CHEVRON CHEMICAL COMPANY
RICHMOND PLANT
RICHMOND, CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. Chevron Chemical Company (hereinafter called the discharger) filed a NPDES Permit Application dated September 29, 1982 for re-issuance of NPDES Permit No. CA 0005061.

2. The discharge of wastewater from this plant is currently regulated by Waste Discharge Requirements Order No. 78-19 and amended by Order No. 80-59.

3. The discharger manufactures and distributes fertilizers which contain various combinations of nitrogen, phosphorus, and potassium compounds, and a variety of pesticides. These contain various toxic substancees, including organophosphates, carbamates, and organochlorine compounds, The majority of the wastes generated on the site are either incinerated, disposed in zero-discharge ponds, or discharged to the sanitary sewer system. The following wastes containing pollutants are discharged to Castro Creek, Herman's Slough, Castro Cove and San Pablo Bay, waters of the United States:

   a. Waste 001 is an indeterminate amount of polluted stormwater runoff originating from areas of the Pesticide and Chemical Processing Plant which contain pesticide, herbicide, liquid fertilizer and heavy metal contaminates. Such areas are transfer stations, process areas, storage and loading areas, and contaminated roof tops.

   b. Waste 002 is an indeterminate amount of polluted stormwater runoff originating from areas of the Difolatan Plant which contain contaminates of fungicide origin. Such areas are transfer stations, process areas, storage and loading areas, and contaminated roof tops.

   c. Wastes 001 and 002 are collected in a stormwater surge pond located along the east side of Castro Street and are pumped to evaporation ponds west of Castro Street. Wastewater from the evaporation ponds is not permitted to be discharged to surface waters. These ponds are regulated by a separate Board order. Wastes 001 and 002 are discharged from the surge pond into waters of the State via a drainage ditch on the east side of Castro

Street, during periods of high-intensity rainfall only. The ditch flows into Castro Creek, a tributary of San Pablo Bay.

4. Waste 003 is an indeterminate amount of polluted stormwater runoff originating from areas of the Fertilizer Plant which contain pollutants of nitrogen, phosphorous, and potassium fertilizers. These areas are transfer stations, process areas, storage and loading areas, and contaminated roof tops. Waste 003 is currently discharged into Chevron's waste evaporation ponds. Waste 003 is discharged to waters of the State only during periods of high intensity rainfall. This discharge is to a drainage ditch, on the west side of Castro Street, which flows to Castro Creek a tributary of San Pablo Bay.

5. Waste 004 is 0.264 million gallons per day (mgd) of exhaust gas scrubber blowdown from a pesticide incinerator. This waste is characterized as a ten percent brine solution which contains incinerated pollutants from the Difolatan and Orthene plant and various waste streams from the formulation and packaging plants. Waste 004 is discharged into the Chevron USA Richmond Refinery's 250 foot channel, where it is mixed with about 59 mgd of once-through cooling waster and about 18.5 mgd of treated refinery process waste. The comingled wastewaters are discharged into Herman's Slough about 500 yards from its confluence with Castro Cove, an embayment of San Pablo Bay.

   As a backup procedure, when Waste 004 does not meet discharge specifications, it may be diverted to the Difolatan ponds. The waste is allowed to evaporate, and all residuals are disposed off-site at a landfill designated as capable of accepting the waste. The pond system is regulated under separate Waste Discharge Requirements.

6. The Board adopted a revised Water Quality Control Plan, San Francisco Bay Basin (Basin Plan) on July 21, 1982, and the State Water Resources Control Board approved it on October 16, 1982. The provisions of this permit are consistent with the objectives of the Basin Plan.

7. The beneficial uses of Castro Creek, Herman's Slough, Castro Cove, and San Pablo Bay are:

   a. Water contact recreation
   b. Non-water contact recreation
   c. Navigation
   d. Commercial and sport fishing
   e. Wildlife habitat
   f. Estuarine habitat
   g. Fish spawning and migration
   h. Industrial service supply
   i. Preservation of rare and endangered species
   j. Shellfish harvesting

8. The Basin Plan states in part:

   a. "...It shall be prohibited to discharge:

      "Any wastewater which has particular characteristics of concern to beneficial uses at any point at which the waste water does not receive a minimum initial dilution of at least 10:1 or into any nontidal water, dead-end slough, similar confined waters, or any immediate tributaries thereof.

      "Waste discharges will contain some levels of pollutants regardless of treatment. This prohibition will require that these pollutants, when of concern to beneficial uses, be discharged away from areas of minimal assimilative capacity such as nontidal waters and dead-end sloughs. This prohibition will accomplish the following:

      a. Provide an added degree of protection from the continous effects of waste discharge.

      b. Provide a buffer against the effects of abnormal discharges caused by temporary plant upsets or malfunctions.

      c. Minimize public contact with undiluted wastes.

      d. Reduce the visual (aesthetic) impact of waste discharges."

   b. "Exceptions to [this] Prohibition ... will be considered for discharges where:

      a. an inordinate burden would be placed on the discharger relative to beneficial uses protected and an equivalent level of environmental protection can be achieved by alternate means, such as alternative discharge site, a higher level of treatment, and/or improved treatment reliability; or

      b. a discharge is approved as part of a reclamation project; or

      c. it can be demonstrated that net environmental benefits will be derived as a result of the discharge."

9. The Basin Plan states in part:

   a. "...It shall be prohibited to discharge:

      "All conservative toxic and deleterious substances, above those levels which can be achieved by a program acceptable to the Board, to waters of the Basin. The intent of the prohibition is to minimize the discharge of persistent toxicants into waters, thus protecting aquatic life and public water supplies. The prohibition recognizes that these substances can be most economically reduced at their source."

10. The discharger's waste, 001, 002, and 003:

    a. Have particular characteristics of concern to beneficial water uses and is discharged at a point at which the wastewater receives less than 10:1 initial dilution, and into a nontidal water.

11. The discharger's waste, 004:

    a. Contains conservative toxic and deleterious substances, in quantities above those levels which can be achieved by a program acceptable to the Board.

    b. Has particular characteristics of concern to beneficial water uses and is discharged at a point at which the wastewater receives less than 10:1 initial dilution.

12. Board Order No. 78-19 prohibited discharge of wastes to Castro Creek or Castro Cove after December 31, 1983, unless the discharger demonstrated that an inordinate burden would be placed on the discharger relative to the beneficial uses protected and that an equivalent level of environmental protection is being provided. That prohibition authorized the discharger to rely heavily on studies performed by Chevron USA, Richmond Refinery.

13. Board Order No. 78-19 as amended by Order No. 80-59 prohibited the discharge of Waste 004 to Castro Creek or Castro Cove after April 1, 1982, unless the discharger demonstrated that the high acute toxicity of the waste was due solely to high salt content, and that such toxicity is eliminated upon dilution. That prohibition indicated that if such a demonstration was not made, the Board would consider adopting a Time Schedule Order for compliance with the prohibition.

14. The discharger filed a report on the study into the source of acute and chronic toxicity in Waste 004 on December 29, 1983. Numerous flaws existed within the study, and therefore no final conclusions can be made concerning the toxicity of the discharge.

15. Chevron USA conducted an "Equivalent Protection Study" comparing environmental and ecological factors in the vicinity of the discharge with those in similar portions of San Pablo Bay. Based on the results of that study, the discharger had proposed to request the Board grant them an exception to the prohibition. After recent discussions with Board staff, Chevron USA has agreed to revise their proposal and resubmit it, by October 1, 1985, along with plans for achieving compliance with the prohibition.

16. This Order serves as an NPDES permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

17. Effluent limitations and toxic effluent standards established pursuant to Sections 208(b), 301, and 307, of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharge.

18. Effluent limitations of this Order are based on the Basin Plan, State Plans and Policies, current plant performance, and best professional judgement. The limitations are considered to be those attainable by Best Available Technology (BAT) in the judgement of the Board.

19. Under 40 CFR 122.44, "Establishing Limitations, Standards, and Other Permit Conditions", NPDES permits should also include toxic pollutant limitations if the discharger uses or manufactures a toxic pollutant as an intermediate or final product or byproduct. This Order contains effluent limits for toxic constituents present in the discharger's effluent in significant amounts.

20. The Board has notified the discharger and interested agencies and persons of its intent to reissue waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

21. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Chevron Chemical Company, Richmond Plant, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. The discharge of waste 001 and 002 to waters of the State is prohibited except as provided under the following conditions:

   During any wet season in which a rainfall event occurs which yields a 24 hour precipitation with a return frequency of once in 25 years, an amount of wastes 001 and 002 may be discharged equal to that attributable to the precipitation occurring in excess of the 25 year, 24 hour storm.

2. The discharge of waste 003 to waters of the State is prohibited except as provided by the following:

   During any wet season in which a rainfall event occurs which yields a 24 hour precipitation with a return frequency of once in 25 years, an amount of waste 003 may be discharged equal to that attributable to the precipitation occurring in excess of the 25 year, 24 hour storm.

3. The discharge of wastes 001, 002,and 003, which contain constituents of concern, and are discharged into a dead-end slough at locations that do not receive a minimum initial dilution of 10:1, is prohibited.

4. The discharge of waste 004, which contains constituents of concern, and is discharged at a location that does not receive a minimum initial dilution of 10:1 is prohibited.

5. The discharge of waste 004, which contains toxic and deleterious substances, in concentrations above those acceptable to the Board is prohibited, in accordance with the time schedule specified in Provision D.6.

6. The discharge of waste 004 that has been diverted to the Difolatan ponds to waters of the State is prohibited.

B. Effluent Limitations

1. The discharge of waste 004 containing constituents in excess of the following limits is prohibited:

Constituent	Units	30 Day Average	Maximum Daily
TOC	lbs/day	52	116
	kg/day	23	53
BOD (5 day at 20°C)	lbs/day	80	338
	kg/day	36	154
Total Suspended Solids	lbs/day	83	125
	kg/day	38	57
Phenols	lbs/day	0.13	0.36
	kg/day	0.06	0.16
Total Pesticides*	lbs/day	0.22	0.45
	kg/day	0.10	0.20
Ammonia as N	lbs/day	63	94
	kg/day	28	43
Settleable Solids	ml/l-hr	0.1	0.2

*Total pesticides shall be determined by measuring Difolatan, and Orthene, which represent over 90% of all production.

2. The combined discharge of waste 004 and Chevron USA refinery effluent shall meet the following limit of quality:

Toxicity:

The survival of threespine stickleback (Gasterosteus aculeatus) test fishes in 96-hr bioassays of the effluent shall achieve a median of 90% survival for three consecutive samples and a 90 percentile value of not less than 70% survival.

3. The combined discharge of waste 004 and Chevron USA refinery effluent shall not have a pH of less than 6.5 nor more than 8.5.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in water of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter of foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

   a. Dissolved oxygen: 5.0 mg/l minimum. The median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation.

   b. Dissolved sulfide: 0.1 mg/l maximum.

   c. pH: The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused by controllable water quality factors to vary from normal ambient pH levels by more than 0.5 units.

   d. Un-ionized ammonia (as N): 0.025 mg/l Annual Median,
      0.4 mg/l Maximum at any time.

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

1. Neither the treatment nor the discharge of pollutants shall create a nuisance as defined in the California Water Code.

2. The discharger shall comply with the limitations and other provisions of this Order upon its adoption by the Board, except Prohibitions A.3., A.4., and A.5.

3. The discharger shall comply with Prohibition A.3. by July 1, 1987. The discharger shall submit progress reports concerning steps taken to comply with the prohibition, not later than the 15th day of May and the 15th day of November of each year, until compliance has been achieved. Compliance with Prohibition A.3. may be achieved by demonstrating to the satisfaction of the Board that an exception to the Basin Plan prohibition should be granted. The discharger shall submit to the Board by July 1, 1986 the proposd demonstration of Prohibition exception, or a demonstration that resources have been committed towards compliance, such as a Draft Environmental Impact Report. A final report documenting compliance with the prohibition, shall be filed not later than the 15th day of July 1987.

4. The discharger shall comply with Prohibition A.4. in accordance with the following time schedule.

	Task	Deadline
1.	Submit a progress report on compliance with Prohibition A.4., and exception request.	June 15, 1985
2.	Submit plans and interim time schedule for compliance with Prohibition A.4., and, if appropriate, a request for consideration of an exception to the prohibition.	October 1, 1985
3.	Achieve full compliance with Prohibition A.4.	July 1, 1987

Quarterly progress reports shall be submitted. The submittal of task 1 will be acceptable as the first progress report.

The discharger may rely heavily on the reports and plans submitted by Chevron USA, Richmond Refinery, in demonstrating compliance with Prohibition A.4.

5. The discharger shall comply with Prohibition A.5. by submitting to the Board, for approval, by March 31, 1985, a proposal with time schedule to either; 1) demonstrate the incinerator blowdown has no greater toxicity than an equivalent salt solution, and therfore an exception to the Basin Plan toxicity limitations may be granted; or 2) treat or otherwise ensure that waste 004 will not contain toxic and deleterious substances in quantities above

those acceptable to the Board. In either case, the discharger shall submit quarterly reports, begining July 15, 1985, documenting progress towards compliance.

6. The discharger shall provide and maintain stand-by capability and an alternate power source to assure timely operation of the stormwater surge pumps under all emergency conditions.

7. In the event of recurrent incidences of non-compliance with Effluent Limitation B.2. - Toxicity, the discharger may be required to submit to the Board a technical report, identifying the conservative and non-conservative toxicants in the process waste effluent and the extent to which each toxicant contributes to the total toxicity. The report shall include a time schedule for elimination of the conservative toxicants in the effluent.

8. In order to prevent, or minimize the potential for, the release of toxic substances or other materials deleterious to water quality, from ancillary activities to the waters of the United States through plant runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage, the discharger shall develop and implement a Best Management Practices (BMP) plan.

   The BMP plan shall be consistent with the general guidance contained in the publication entitled "NPDES Best Management Practices Guidance Document", dated June 1981, and prepared by the U.S. Environmental Protection Agency, Office of Water Enforcement and Permits, NPDES Technical Support Branch. At a minimum, the plan shall include the following BMP's:

   a. BMP committee
   b. Reporting of BMP incidents
   c. Risk identification and assessment
   d. Employee training
   e. Inspections and records
   f. Preventative operations and maintenance
   g. Good housekeeping
   h. Materials compatibility
   i. Security

   The BMP plan shall be submitted to the Executive Officer, for approval, within twelve (12) months of the adoption of this permit. The plan shall be implemented within fourteen (14) months of the adoption of this permit.

9. The discharger shall submit for approval, to the Executive Officer, by July 1, 1985, a proposal for describing the normal operating conditions of the incinerator. The proposal shall address at a minimum, the following areas of concern: variability of combustion temperature, variability of droplet and/or particle size of the waste feed, and variability in the concentration of specific compounds in the off-gases and scrubber blowdown.

10. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act, or amendments thereto, and shall take effect at the end of ten days from date of hearing provided the Regional Administrator, U.S. Environmental Protection Agency, has no objections.

11. This permit shall be modified or alternatively revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2),(c), and (d), 303, 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

    (a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or,

    (b) Controls any pollutant not limited in the permit.

    The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

12. The discharger shall comply with the attached self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.

13. This permit may be modified prior to the expiration date to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through a more comprehensive monitoring program included as a part of this Order.

14. All applications, reports, or information submitted to the Board shall be signed and certified pursuant to Environmental Protection Agency regulations [40 CFR 122.41(k)].

15. Pursuant to Environmental Protection Agency regulations [40 CFR 122.42(a)] the discharger must notify the Board as soon as it knows or has reason to believe (1) that they have begun or expect to begin, use or manufacture a pollutant not reported in the permit application, or (2) a discharge of a toxic pollutant not limited by this permit has occurred, or will occur, in concentrations that exceed the specified limits included in 40 CFR 122.42(a).

16. Orders No. 78-19 and 80-59 are hereby rescinded.

17. This Order includes all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977, except A.5., A.12., A.16., B.2., B.4., and B.5.

18. This Order expires on February 20, 1990 and the discharger must file a Report of Waste Discharge in accordance with Title 23, of the California Administrative Code, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

19. The discharger shall review and update annually its contingency plan as required by Regional Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on February 20, 1985.

ROGER B. JAMES,
Executive Officer

Attachments:
Standard Provisions, Reporting
Requirements and Definitions dated April 1977
Board Resolution No. 74-10
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

Chevron Chemical Company, Ortho Division

Richmond Plant

Richmond, Contra Costa County

NPDES NO. CA 0005061

ORDER NO. 85-27

CONSISTS OF

PART A dated January 1978

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. EFFLUENT

Station	Description
E-001	At any point in the outfall from the Storm water surge pond containing Wastes 001 and 002 between the point of discharge and the point at which all waste tributary to that outfall is present.
E-003	At any point in the outfall from the Fertilizer Plant containing waste 003 between the point of discharge and the point at which all waste tributary to the outfall is present.
E-004	At any point in the outfall from the incinerator containing Waste 004 between the point where it is mixed with the cooling water and the point at which all wastewater from the incinerator is present.
E-005	At any point in the cooling water channel such that sample is characteristic of cooling waters used for dilution of Waste 004.
E-006	At any point immediately above the Chevron USA 250 foot channel dam such that the sample is representative of the mixture of wastes discharged to Castro Creek.

B. RECEIVING WATERS

Station	Description
C-001	At a point in the drainage ditch, immediately west of Castro Street culvert.
C-002	At a point in the drainage ditch, located immediately upstream of the tide gates adjoining Hermans Slough.
C-A1	At a point in Castro Creek, located at the confluence with the 250-foot channel.
C-A2	At a point in Castro Creek, located 250 feet southeasterly of Station C-A1.

Station	Description
C-20d	At a point in San Pablo Bay, located in the entrance channel to Castro Creek, within the limits of the southwesterly quarter of grid square No. 20, per attached drawing.
C-23d	At a point in San Pablo Bay, located within the limits of the southwesterly quarter of grid No. 23 per attached drawing.
C-28d	At a point in San Pablo Bay, located in the entrance channel to Castro Creek, within the limits of the southwesterly quarter of grid square No. 28, per attached drawing.
C-31b	At a point in San Pablo Bay, located within the limits of the northeasterly quarter of grid square No. 31, per attached drawing.
C-47a	At a point in San Pablo Bay, located within the limits of the northwesterly quarter of grid square No. 47, per attached drawing.
C-48d	At a point in San Pablo Bay, located within the limits of the southwesterly quarter of grid square No. 48, per attached drawing.

C. SEDIMENTS (not used)

D. LAND OBSERVATIONS

Station	Description
P-1	At the point of discharge of Waste 001 and 002 to the drainage ditch tributary to Herman's Slough.
P-3	At the point of discharge of Waste 003 to the drainage ditch tributary to Herman's Slough.
L-1 thru L-'n'	Located along the perimeter levees of each evaporation pond at equidistant intervals not to exceed 100 feet. (A sketch showing the locations of these stations will accompany each report.)

E. RAINFALL

Station	Description
R-1	The nearest official recording National Weather Service rainfall station or other station acceptable to the Executive Officer.

F. MISCELLANEOUS REPORTING INSTRUCTIONS

1. The discharger shall submit a sketch showing the locations of all ponds, treatment facilities, and points of waste discharge. This shall be updated by the discharger as changes occur.

2. For any discharge at E-001 and E-003 sufficient rainfall data in a format acceptable to the Executive Officer shall be submitted by the discharger showing at least hourly rainfall rates to define a rainfall event that allows discharge, e.g. Wastes discharging at E-001 will require rainfall data be submitted sufficient to define that a rainfall event exceeding a "mean rainfall event" has occurred, and for wastes discharging at E-003, rainfall data shall be submitted of at least 24 continuous hours to define that a rainfall event exceeding a "25 year, 24 hour" rainfall event has occurred.

3. To avoid duplication of data, the discharger may utilize data reported by Chevron USA for submittal, provided that both Chevron USA and Chevron Chemical Company officially certify its accuracy.

4. Compliance with toxicity limit B.2 for waste 004 after mixing with refinery effluent and as discharged shall be determined at station B-006. Toxicity of waste 004 after mixing with cooling water shall be determined using a flow proportional mixture of waste 004 from station E-004 and refinery cooling water from station E-005. The median tolerance limit (TI_m) for waste 004 at station E-004 shall be determined using refinery cooling waters from station E-005 as diluent.

5. Discharge of wastes 001, 002, or 003 shall be reported to the Board by telephone immediately following the commencement of discharge.

II. SCHEDULE OF SAMPLING AND ANALYSIS

A. The schedule of sampling and analysis shall be that given as Table I.

III. MODIFICATION OF PART A

Exclude paragraphs C-3; C-4; C-5 b, c; D-1; and E-4.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste dicharge requirements established in Regional Board Order No. 85-27.

2. Is hereby ordered effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

ROGER B. JAMES
Executive Officer

Attachment:
Table I
Map

Date Ordered February 27, 1985

TABLE 1
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001		E-003		E-004		E-006		C-001 C-002	L	R	P-1 P-3	
TYPE OF SAMPLE	C	G	C	G	C-24	G	C-24	G	G	O	O	O	
Flow Rate (mgd)	E[1]		E[1]		D								
BOD, 5-day, 20°C, or COD (mg/l & kg/day)					W								
Chlorine Residual & Dosage (mg/l & kg/day)													
Settleable Matter (ml/1-hr. & cu. ft./day)						W							
Total Suspended Matter (mg/l & kg/day)				E	W								
Oil and Grease (mg/l & kg/day)													
Coliform (Total or Fecal) (MPN/100 ml) per req't													
Fish Tox'y 96-hr. TL % Surv'l in undiluted waste		E		E	M		M[2]						
Ammonia Nitrogen (mg/l & kg/day)				E	W								
Nitrate Nitrogen (mg/l & kg/day)				E	M								
Nitrite Nitrogen (mg/l & kg/day)					M								
Total Organic Nitrogen (mg/l & kg/day)				E	M								
Total Phosphate (mg/l & kg/day)				E	M								
Turbidity (Jackson Turbidity Units)													
pH (units)		E		E	cont		cont		E				
Dissolved Oxygen (mg/l and % Saturation)									E				
Temperature (°C)					cont		cont						
Apparent Color (color units)													
Secchi Disc (inches)													
Sulfides Total & Dissolved (mg/l)					W				E				
Arsenic (mg/l & kg/day)		E			M								
Cadmium (mg/l & kg/day)													
Chromium, Total (mg/l & kg/day)		E			M								
Copper (mg/l & kg/day)		E			M								
Cyanide (mg/l & kg/day)													
Silver (mg/l & kg/day)													
Lead (mg/l & kg/day)					M								

TABLE 1 (continued)

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001		E-003		E-004		E-006		C-001 C-002	L	R	P-1 P-3
TYPE OF SAMPLE	C	G	C	G	C-24	G	C-24	G	G	O	O	O
Mercury (mg/l & kg/day)					M							
Nickel (mg/l & kg/day)					M							
Zinc (mg/l & kg/day)		E			M							
Phenolic Compounds (mg/l & kg/day)					M							
All Applicable Standard Observations									E	M		E
Bottom Sediment Analyses and Observations												
Total Ident. Chlor. Hydrocarbons (mg/l & kg/day)												
Un-ionized ammonia (mg/l & kg/day)									E			
Rainfall depth & duration											D	
Total Pesticides ug/l & g/day)		E			W			M				
Total Organic Carbon mg/l & kg/day		E			W							
Selenium mg/l & kg/day					M							
Difolatan ug/l & g/day		E			W							
Orthene (ug/l & g/day)					W							
paraquat (ug/l & g/day)					2M(5)							
toxaphene (ug/l & g/day)					2M(5)							
Captan (ug/l & g/day)					2M(5)							
Chlorodane (ug/l & g/day)					2M(5)							
Phenol (ug/l & g/day)					W(5)							
Benzene (ug/l & g/day)		E				W(4)						
Toulene (ug/l & g/day)		E				M(4)						
Carbon Tetrachloride (ug/l & g/day)						M(4)						
Chloroform (ug/l & g/day)						M(4)						
Methyl Chloride (ug/l & g/day)						M(4)						
Hexachlorocyclopentadiene (ug/l & g/day)					M(4)							
2,4-Dinitrophenol (ug/l & g/day)					M(4)							
N-nitrosodium-propylamine (ug/l & g/day)					M(4)							
Lindane (ug/l & g/day)		E			M(4)							
Sevin (ug/l & g/day)		E			M(4)							

TABLE 1 (continued)

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001		E-003		E-004		E-006		C-001 C-002	L	R	P-1 P-3	
TYPE OF SAMPLE	C	G	C	G	C-24	G	C-24	G	G	O	O	O	
BHC (ug/l & g/day)		E			(4) M								
Trichloroethylene (ug/l & g/day)		E				(4) M							
Methylene chloride (ug/l & g/day)		E				(4) M							
Pentachlorophenol (ug/l & g/day)					(4) M								
Isophorone (ug/l & g/day)					(4) M								
VOA & BN/A Organics (ug/l & g/day)					(3) 2M								

LEGEND FOR TABLE 1

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
Cont = continuous sampling
O = observation

TYPES OF STATIONS

I = intake stations
E = waste effluent stations
C = receiving water stations
B = bottom sediment stations

FREQUENCY OF SAMPLING

E = each occurence
D = once each day
W = once each week
2/W = 2 days per week
M = once each month
2M = every 2 months
Y = once each year
cont = continuous

FOOTNOTES FOR TABLE 1

(1) The volume of waste water discharged shall be estimated each time a sample is taken.

(2) Static bioassays shall be utilized to determine compliance for the first six months subsequent to adoption of this permit. Thereafter the discharger shall determine compliance utilizing flow-through bio-assaays. Immediately upon the death of over half of the test fishes, the LC-50 of the discharge shall be determined using at least 4 dilutions in a static bioassay.

(3) Flow proportional, 24-hr composite samples shall be used.

Volatile Organic Toxic Pollutants shall be analyzed using EPA Method 624 of the July 1982, Methods for Organic Chemical Analysis of Municipal and Industrial Wastewaters, EPA-600/4-82-057. In addition, all other peaks appearing in the reconstructed ion chromatograph above the detection limit shall be quantified based on the nearest internal standard.

Acid and Base/Neutral Extractable Organic Toxic Pollutants shall be analyzed using EPA Method 625 of the July 1982, Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, EPA-600/4-82-057. In addition, the five most prominent peaks appearing in the reconstructed ion chromatograph above the detection limit shall be quantified based on the nearest internal standard.

(4) Analysis shall be at the indicated frequency until a total of 12 months of data has been obtained, after which time the data shall be reviewed before any additional monitoring is required.

(5) Analysis shall be at the indicated frequency until a total of 12 months of data has been obtained, after which time the Executive Officier may review the monitoring data and reduce the sampling frequency, if appropriate.

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

Chevron Chemical & Chevron USA-Rich.

Reference Map for Self Monitoring Program

DRAWN BY: LPK	DATE: 9/3/74	DRWG. NO.

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